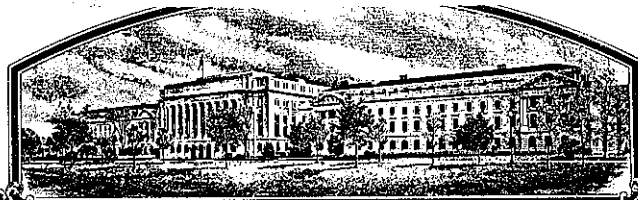


No.

8000129



THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Dunn Seed Farms, Inc.

Whereas, THERE HAS BEEN PRESENTED TO THE
Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED NOVEL VARIETY OF SEXUALLY REPRODUCED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF *eighteen* YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

COTTON

'Dunn 224'



In Testimony Whereof, I have hereunto set
my hand and caused the seal of the Plant
Variety Protection Office to be affixed
at the City of Washington
this 14th day of May in
the year of our Lord one thousand nine
hundred and eighty-one.

Attest:

Samuel H. Lee
Commissioner
Plant Variety Protection Office
Grain Division
Agricultural Marketing Service

John R. Block
Secretary of Agriculture

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
LIVESTOCK, POULTRY, GRAIN & SEED DIVISION

FORM APPROVED
OMB NO. 40-R3822

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

INSTRUCTIONS: See Reverse.

No certificate for plant variety protection may be issued unless a completed application form has been received (5 U.S.C. 553).

| | | | | | |
|---|--|---|--|---|---------------------------|
| 1a. TEMPORARY DESIGNATION OF VARIETY Dunn 224 | | 1b. VARIETY NAME Dunn 224 | | FOR OFFICIAL USE ONLY PV NUMBER 8000129 | |
| 2. KIND NAME Cotton | | 3. GENUS AND SPECIES NAME Gossypium hirsutum | | FILING DATE 6/3/80 | TIME 10:00 <u>A.M.</u> |
| 4. FAMILY NAME (BOTANICAL) Malvaceae | | 5. DATE OF DETERMINATION 1974 | | FEE RECEIVED \$ 500.00 \$ 250.00 | DATE 6/3/80 3/23/81 |
| 6. NAME OF APPLICANT(S) Dunn Seed Farms, Inc. | | 7. ADDRESS (Street and No. or R.F.D. No., City, State, and ZIP Code) Rt. 4, Box 431 Seminole, Tex 79360 | | 8. TELEPHONE AREA CODE AND NUMBER 915 758 3628 | |
| 9. IF THE NAMED APPLICANT IS NOT A PERSON, FORM OF ORGANIZATION: (Corporation, partnership, association, etc.) Corporation | | 10. IF INCORPORATED, GIVE STATE AND DATE OF INCORPORATION Texas | | 11. DATE OF INCORPORATION 1-22-68 | |
| 12. NAME AND MAILING ADDRESS OF APPLICANT REPRESENTATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS: James R. Dunn Rt. 4, Box 431, Seminole, Texas 79360 | | | | | |

13. CHECK BOX BELOW FOR EACH ATTACHMENT SUBMITTED:

- ☒ 13A. Exhibit A, Origin and Breeding History of the Variety (See Section 52 of the Plant Variety Protection Act.)
- ☒ 13B. Exhibit B, Novelty Statement.
- ☒ 13C. Exhibit C, Objective Description of the Variety (Request form from Plant Variety Protection Office.)
- ☒ 13D. Exhibit D, Additional Description of the Variety.

14a. DOES THE APPLICANT(S) SPECIFY THAT SEED OF THIS VARIETY BE SOLD BY VARIETY NAME ONLY AS A CLASS OF CERTIFIED SEED? (See Section 83(a). (If "Yes," answer 14B and 14C below.) ☐ YES ☒ NO

14b. DOES THE APPLICANT(S) SPECIFY THAT THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS? ☐ YES ☒ NO

14c. IF "YES," TO 14B, HOW MANY GENERATIONS OF PRODUCTION BEYOND BREEDER SEED? ☐ FOUNDATION ☐ REGISTERED ☐ CERTIFIED

15a. DID THE APPLICANT(S) FILE FOR PROTECTION OF THIS VARIETY IN OTHER COUNTRIES? ☐ YES ☒ NO (If "Yes," give name of countries and dates.)

15b. HAVE RIGHTS BEEN GRANTED THIS VARIETY IN OTHER COUNTRIES? ☐ YES ☒ NO (If "Yes," give name of countries and dates.)

16. DOES THE APPLICANT(S) AGREE TO THE PUBLICATION OF HIS/HER (THEIR) NAME(S) AND ADDRESS IN THE OFFICIAL JOURNAL? ☒ YES ☐ NO

17. The applicant(s) declare(s) that a viable sample of basic seed of this variety will be furnished with the application and will be replenished upon request in accordance with such regulations as may be applicable.

The undersigned applicant(s) is (are) the owner(s) of this sexually reproduced novel plant variety, and believe(s) that the variety is distinct, uniform, and stable as required in Section 41, and is entitled to protection under the provisions of Section 42 of the Plant Variety Act.

Applicant(s) is (are) informed that false representation herein can jeopardize protection and result in penalties.

4/1/80
(DATE)

James R. Dunn
(SIGNATURE OF APPLICANT)

(DATE)

(SIGNATURE OF APPLICANT)

INSTRUCTIONS

GENERAL: Send an original copy of the application and exhibits, at least 2,500 viable seeds, and \$500 fee (\$250 filing fee and \$250 examination fee) to U.S. Dept. of Agriculture, Agricultural Marketing Service, Livestock, Poultry, Grain and Seed Division, Plant Variety Protection Office, National Agricultural Library Building, Beltsville, Maryland 20705. (See section 180.175 of the Regulations and Rules of Practice.) Retain one copy for your files. All items on the face of the form are self-explanatory unless noted below.

ITEM

- 5 Give the date the applicant determined that he had a new variety based on (1) the definition in section 41(a) of the Act and (2) the date a decision was made to increase the seed.
- 13a Give: (1) the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method; (2) the details of subsequent stages of selection and multiplication; (3) the type and frequency of variants during reproduction and multiplication and state how these variants may be identified and (4) evidence of uniformity and stability.
- 13b Give a summary statement of the variety's novelty. Clearly state how this novel variety may be distinguished from all other varieties in the same crop. If the new variety most closely resembles one or a group of related varieties: (1) identify these varieties and state all differences objectively; (2) attach statistical data for characters expressed numerically and demonstrate that these differences are significant; and (3) submit, if helpful, seed and plant specimens or photographs of seed and plant comparisons clearly indicating novelty.
- 13c Fill in the Exhibit C, Objective Description form, for all characteristics for which you have adequate data.
- 13d Describe any additional characteristics that are not described, or whose description cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the description of characteristics that are difficult to describe, such as, plant habit, plant color, disease resistance, etc.
- 14a If "YES" is specified (seed of this variety be sold by variety name only as a class of certified seed) the applicant may NOT reverse his affirmative decision after the variety has either been sold and so labeled, his decision published, or the certificate has been issued. However, if the applicant specified "NO," he may change his choice. (See section 180.16 of the Regulations and Rules of Practice.)
- 15a See section 42 of the Plant Variety Protection Act and section 180.7 of the Regulations and Rules of Practice.

Exhibit A

Dunn 224

This variety is the result of extensive selection and progeny testing of noncommercial strains of cotton introduced in 1968 from Missouri Agricultural Experiment Station. The pedigree method of handling plant material with progeny testing for evaluation of lines, was followed.

Approximately 500 plants were selected in 1969 based on fiber qualities, disease resistance, lint percentage, stormproofness, and earliness. The plants were progeny tested in 1970 and evaluated for the above characteristics. The lines appeared quite uniform and correlation coefficients between the selected plant and their progenies were calculated for the above mentioned traits. On the basis of these evaluations, the top 5 lines were selected and increased for future testing.

In 1972, and 1973 the 5 selected lines were tested for yield, lint %, fiber qualities, disease resistance along with available commercial varieties at Welch, Texas. Since the strain number 224 was superior in many aspects it was increased in Mexico in 1973. In Welch, Texas the strain 224 was tested along with commercial lines and yield performance was exceptional. Micro-spinning tests were performed on this line with the results shown in the appendix.

The strain was increased in isolated fields for purity. Roguing was practiced to prevent contamination and mixing. The designation Dunn 224 was given to the strain for further evaluations and testing. Variety testing was performed in several locations in the State including Halfway, Lubbock, Dallas, and Corpus Christi. The variety was also tested in Oklahoma under both dry land and irrigated conditions. A narrow row test was also performed in Brawly, California with results enclosed.



SEED FARMS, INC.

JAMES REX DUNN
PRESIDENT



January 14, 1981

Mr. Kenneth H. Evans, Acting Commissioner
United States Department of Agriculture
National Agricultural Library Building
Beltsville, Maryland 20705

Dear Mr. Evans:

In reply to your letter dated December 31, 1980, I would like to mention a reply was given to your previous letter, but it was not received by your office.

A copy of Appendix 12 submitted earlier to your office is enclosed herewith. The characteristics included under plant morphology indicates how Dunn 224 is distinguished from Deltapine 16 and other varieties.

Average plant height of Dunn 224 - 24.86 inches
Average plant height of Deltapine 16 - 28.42 inches

Average bolls per plant of Dunn 224 - 6
Average bolls per plant of Deltapine 16 - 4

Average boll length & boll width of Dunn 224 - 2.30 & 1.51 inches respectively
Average boll length & boll width of Deltapine 16 - 2.22 & 1.30 inches respectively

Average bract length & bract width of Dunn 224 - 2.20 & 1.26 inches respectively
Average bract length & bractwidth of Deltapine 16 - 2.17 & 1.08 inches respectively

Deltapine 16 is indeterminate plant, where as Dunn 224 is more determinate in fruiting habit. Most of the bolls, namely 70% of bolls of Dunn 224 have 4 locules where as 100% bolls of Deltapine 16 have 5 locules, which show a significant difference.

The Missouri line used in the breeding of Dunn 224 was a Missouri-Delta experimental cotton. The history of breeding is mentioned in Exhibit A.

Thank you.

Sincerely,

DUNN SEED FARMS, INC.

S. P. Sengupta

S. P. Sengupta, Ph.D.
Director of Research

SPS/eg
Encls

ROUTE 4, BOX 431 • OFFICE (915) 758-3628 • SEMINOLE, TEXAS 79360

Description of variants and their frequency: There are two types of variants namely,

- (a) Glandless plants - These plants are easily recognized in the field because of the reduced glands in stem, petiole, leaf, and boll and smoothness of petiole and leaf. The frequency of occurrence of these glandless plants is .01 percent.
- (b) Plants with bigger bolls: These plants are easily identified in the field because of the size of the bolls with length by breadth dimension of 27.6 cm^2 , as compared to that of normal bolls 19.1 cm^2 . The frequency of occurrence of these plants with bigger bolls is 1.0 percent.

Statement regarding stability: Systematic roguing of variants (a) mentioned above and methodical selection of variants (b) for the past four years are gradually eliminating these two variants and consequently the variety Dunn 224 has become pretty stable.

EXHIBIT B

Novelty Statement

1. Dunn 224 is morphologically different from all other Dunn cotton varieties, namely Dunn 118, Dunn 119, Dunn 120 and Dunn 219. All these varieties have bigger bolls as compared to the bolls of Dunn 224. Data (Average of 1977 & 1978):

| | Dunn 118 | Dunn 119 | Dunn 120 | Dunn 219 | Dunn 224 |
|------------------|----------|----------|----------|----------|----------|
| Boll dimension | 29.8 | 29.8 | 29.8 | 31.6 | 19.1 |
| Length x breadth | | | | | |
| cm | | | | | |

2. Dunn 224 has some morphological similarity to Paymaster IIIA as regard to plant height, leaf character and flower color. But so far boll morphologh is concerned, Paymaster IIIA has very big bolls as compared to the bolls of Dunn 224. Data (Average of 1977 & 1978):

| | Paymaster IIIA | Dunn 224 |
|-------------------|----------------|----------|
| Plant height cm | 63.4 | 76.2 |
| Boll dimension cm | 27.1 | 19.1 |

3. Also regarding yeild of cotton, Dunn 224 has been consistently higher yeilder than Paymaster IIIA. Data (Average of 4 years):

| | 1974 (Welch) | 1976 (Seminole) | 1977 (Seminole) | 1978 (Seminole) |
|----------------|--------------|-----------------|-----------------|-----------------|
| | Lint lbs. | Seed Cot. lbs. | Seed Cot. lbs. | Seed Cot lbs. |
| Paymaster IIIA | 697 | 1912.8 | 2444.4 | 2627.5 |
| Dunn 224 | 981 | 2146.4 | 2529.4 | 2830.1 |
| Percent Inc. | 10.0 | 10.9 | 3.4 | 7.2 |

4. Dunn 224 most closely resembles Delta Pine 16; however Dunn 224 has storm resistant bolls, is resistant to bacterial blight, while Delta Pine 16 has open bolls and is suceptable to bacterial blight.

| | Plant Height | | Boll Size | Boll Dimension |
|---------------|--------------|------|-----------|----------------|
| | in | cm | | cm |
| Delta Pine 16 | | 74.6 | 5.7 | 18.5 |
| Dunn 224 | | 76.2 | 5.8 | 19.1 |

5. Also, in regard to boll character, 70 percent bolls of Dunn 224 have four locules, whereas most of the bolls of Delta Pine 16 and other cotton varieties have five locules.
6. All the commercial varieties have no resistance against boll worms-bud worm complex, but Dunn 224 appears to have some tolerance to the insect under natural condition of infestation at Seminole, Texas. (Appendix 10, 10A, 11, 11A)
7. Bolls of Dunn 224 are tight and storm resistant. The surface area covered by bracts over the boll is less as compared to that of other varieties and consequently the breeding space for boll worm is reduced. This should have a bearing on the tolerance of Dunn 224 to boll worm infestation. (Appendix 7, 14, 12, 12A)

FORM GR-470-8
(10-2-72)UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
GRAIN DIVISION
HYATTSVILLE, MARYLAND 20782EXHIBIT C
(COTTON)OBJECTIVE DESCRIPTION OF VARIETY
COTTON (GOSSYPIMUM SPP.)

INSTRUCTIONS: See Reverse.

NAME OF APPLICANT(S)

Dunn Seed Farms, Inc.

ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP Code)

Rt. 4, Box 431
Seminole, Tex 79360

FOR OFFICIAL USE ONLY

PVPO NUMBER

Dunn 224 8000129

VARIETY NAME OR TEMPORARY
DESIGNATION

Dunn 224

Place the appropriate number that describes the varietal character of this variety in the boxes below.
Place a zero in first box (e.g., or) when number is either 99 or less or 9 or less.

1. SPECIES

 1 = GOSSYPIMUM HIRSUTUM 2 = GOSSYPIMUM BARBADENSE

2. AREA(S) OF ADAPTION (0 = Not Tested, 1 = Not Adapted, 2 = Adapted)

 EASTERN DELTA CENTRAL HIGH PLAINS EL PASO AREA
 WESTERN LOW HOT VALLEYS SAN JOAQUIN OTHER (Specify) _____

3. MATURITY (50% Open Bolls)

 NO. OF DAYS EARLIER THAN } 1 = COKER 310 2 = DELTAPINE 16 3 = STONEVILLE 213
 NO. OF DAYS LATER THAN } 4 = PAYMASTER 111 5 = ACALA 1517-70 6 = ACALA SJ-1
7 = LANKART 57 8 = OTHER (Specify) _____

4. PLANT HABIT

 1 = SPREADING 2 = INTERMEDIATE 3 = COMPACT 1 = FOLIAGE SPARSE 2 = DENSE
3 = OTHER (Specify) _____

5. PLANT HEIGHT

 CM. SHORTER THAN } 1 = COKER 310 2 = DELTAPINE 16 3 = STONEVILLE 213
 CM. TALLER THAN } 4 = PAYMASTER 111 5 = ACALA 1517-70 6 = ACALA SJ-1
7 = LANKART 57 8 = OTHER (Specify) _____

6. MAIN STEM

 1 = LAX 2 = ASCENDING 3 = ERECT CM. TO FIRST FRUITING BRANCH NO. OF NODES TO FIRST FRUITING BRANCH
(from cotyledonary node)

7. LEAF

 CM. WIDTH OF
WIDEST LEAVES
AT MATURITY

8. LEAF PUBESCENCE

 2 = SMOOTH LEAF (DELTAPINE SMOOTH LEAF) 3 = PUBESCENT (STONEVILLE 213)
4 = HEAVY PUBESCENCE (H₁ OR H₂) 5 = OTHER (Specify) _____

9. LEAF COLOR

 1 = VIRESCENT YELLOW 2 = LIGHT GREEN 3 = DARK GREEN (Acala 442) 4 = RED
5 = OTHER (Specify) _____

10. LEAF TYPE

 1 = NORMAL 2 = OKRA 3 = SUPER-PHA 4 = OTHER (Specify) _____

11. FLOWER

 1 = NECTARILESS 2 = NECTARIED Petals 1 = CREAM 2 = YELLOW Pollen 1 = CREAM 2 = YELLOW

12. FRUITING BRANCH TYPE

 1 = CLUSTER 2 = SHORT 3 = NORMAL 1 = DETERMINATE 2 = INDETERMINATE

13. GOSSYPOL CONDITION

 1 = GLANDLESS 2 = REDUCED GLANDS 3 = NORMAL GLANDS 1 = NORMAL BUD GOSSYPOL
4 = OTHER (Specify) _____ 2 = HIGH BUD GOSSYPOL

14. SEEDS

 ± SEED INDEX (Fuzzy seed basis) Seed Fuzz 1 = SPARSE (GREGG 35) 2 = MODERATE (DPL-16)
3 = HEAVY (ACALA SJ-1) 4 = OTHER (Specify) _____

FORM GR-470-B (REVERSE)

15. BOLLS:

| | | | | |
|--|--|---|---|--|
| <input type="text" value="2"/> Locules | 1 = 3-4 2 = 4-5 | <input type="text" value="2"/> <input type="text" value="8"/> NO. SEEDS PER BOLL | <input type="text" value="3"/> <input type="text" value="8"/> <input type="text" value="0"/> LINT PERCENT | <input type="text" value="3"/> <input type="text" value="6"/> MM. DIAMETER |
| <input type="text" value="2"/> Fiber | 1 = NONE 2 = FINE 3 = COARSE | <input type="text" value="6"/> <input type="text" value="0"/> <input type="text" value="0"/> GRAMS SEED COTTON PER BOLL | <input type="text" value="2"/> Breadth | 1 = BROADER AT BASE 2 = BROADER AT MIDDLE |
| <input type="text" value="2"/> Type | 1 = STORMPROOF (WET FIBER 70) 2 = STORM RESISTANT (LANKART 57) 3 = OPEN (DELTAPINE 16) | <input type="text" value="3"/> Shape | 1 = LENGTH < WIDTH 2 = LENGTH = WIDTH 3 = LENGTH > WIDTH | |

16. BRACTEOLLES

| | | | |
|--|--|--------------------------------------|---|
| <input type="text" value="3"/> Breadth | 1 = LENGTH < WIDTH 2 = LENGTH = WIDTH 3 = LENGTH > WIDTH | <input type="text" value="3"/> Teeth | 1 = 3-4 2 = 5-7 3 = 8-10 4 = OTHER (Specify) |
| <input type="text" value="1"/> Teeth | 1 = FINE 2 = COARSE | | |

17. YIELD: Compared to

| | |
|---|--|
| <input type="text" value="8"/> <input type="text" value="0"/> PERCENT LESS THAN | <input type="text" value="4"/> 1 = COKER 310 2 = DELTAPINE 16 3 = STONEVILLE 213 4 = PAYMASTER 111 5 = ACALA 1517-70 6 = ACALA 5J-1 7 = LANKART 57 |
| <input type="text" value="8"/> <input type="text" value="0"/> PERCENT MORE THAN | |

18. FIBER LENGTH (Complete one or more of the following and give the means):

| | | |
|---|---|--|
| <input type="text" value="1"/> <input type="text" value="0"/> <input type="text" value="4"/> SPAN LENGTH 50% | <input type="text" value="1"/> <input type="text" value="0"/> <input type="text" value="4"/> SPAN LENGTH 2.5% | <input type="text" value="7"/> <input type="text" value="1"/> <input type="text" value="9"/> U.M.M. LENGTH |
| <input type="text" value="3"/> <input type="text" value="3"/> MEAN LENGTH | <input type="text" value="3"/> <input type="text" value="3"/> STAPLE LENGTH 32nd INCHES | |
| <input type="text" value="7"/> <input type="text" value="1"/> <input type="text" value="9"/> UNIFORMITY RATIO (MEAN/U.M.M.) | <input type="text" value="4"/> <input type="text" value="7"/> UNIFORMITY INDEX = (50% SPAN/2.5% SPAN) | |

19. FIBER STRENGTH AND ELONGATION

| | | |
|---|--|--|
| <input type="text" value="0"/> <input type="text" value="9"/> <input type="text" value="7"/> 1,000 P.S.I. | <input type="text" value="0"/> <input type="text" value="7"/> <input type="text" value="5"/> ELONGATION E ₁ | <input type="text" value="2"/> <input type="text" value="3"/> <input type="text" value="0"/> STILOMETER T ₀ |
| <input type="text" value="4"/> <input type="text" value="4"/> <input type="text" value="0"/> MICRONAIRE READING | <input type="text" value="9"/> <input type="text" value="3"/> YARN STRENGTH (five test method) Yarn No. 22/1 | <input type="text" value="2"/> <input type="text" value="3"/> <input type="text" value="0"/> STILOMETER T ₁ |

20. DISEASE (0 = Not Tested, 1 = Susceptible, 2 = Resistant)

| | | | |
|--|---|--|--|
| <input type="text" value="0"/> VERTICILLIUM WILT | <input type="text" value="0"/> FUSARIUM WILT | <input type="text" value="0"/> ROOT KNOT NEMATODE | <input type="text" value="2"/> BACTERIAL BLIGHT (Race 2) |
| <input type="text" value="2"/> BACTERIAL BLIGHT (Race 2) | <input type="text" value="0"/> ASLOCHYTA BLIGHT | <input type="text" value="0"/> PHYMATOTRICHUM ROOT ROT | <input type="text" value="0"/> RHIZOCTONIA |
| <input type="text" value="0"/> ANTHRACNOSE | <input type="text" value="0"/> RUST | <input type="text" value="0"/> OTHER (Specify) | |

21. INSECT (0 = Not Tested, 1 = Susceptible, 2 = Resistant)

| | | | |
|--|---|--|--|
| <input type="text" value="0"/> BOLL WEEVIL | <input type="text" value="0"/> BEETLE | <input type="text" value="0"/> FLEA BEETLE | <input type="text" value="0"/> LEAF WORM |
| <input type="text" value="0"/> FALL ARMYWORM | <input type="text" value="0"/> SPANCHER | <input type="text" value="0"/> LYGID | <input type="text" value="0"/> PINK BOLLWORM |
| <input type="text" value="0"/> STINK BUG | <input type="text" value="0"/> CRICKET | <input type="text" value="0"/> CUTWORM | <input type="text" value="0"/> SPIDER MITE |
| <input type="text" value="0"/> OTHER (Specify) | | | |

REFERENCES: The following publications may be used as a reference and for the standardization of terms and procedures for completing this form:

- (1) Brown, Harry B., and F. O. Ware, 1958, Cotton. McGraw-Hill Book Company, Inc., New York.
- (2) Lewis, C. F., and H. H. Paney, Jr., 1971, 1970 Regional Cotton Variety Tests, ARS 34-136, United States Department of Agriculture.

COLORS: Nickerson's or any recognized color fan may be used to determine flower color of the described variety.

Exhibit D - Description of Variety 'Dunn 224'

1. Dunn 224 is a cotton variety of upland type and is adapted to the high plains and rolling plains of Texas, San Joaquin Valley of California, New Mexico and Oklahoma. (Appendix 1-10, 14, 15, 16 & 17)
2. The plants are of medium height averaging 76.20 cm., have strong main stem, determinate in plant habit, and growth, and have open fruiting branches. The first fruiting branch appears on about 5th node from the cotyledonary node. (Exhibit C)
3. Leaves are sparsely pubescent to glabrous and have typical upland shape with one nectaried gland. Flowers have cream colored petals and pollen. (Exhibit C)
4. Dunn 224 is a stable variety and has been consistently a good yielder for the last several years. Under adverse weather conditions, where some high yielding varieties have failed. Dunn 224 has always been consistent (Appendix 2, 3, 4, 6, 7, 8, 10B, 13 & 14)
5. The cotton of Dunn 224 is very clean, grade is generally middling, and the farmers like this variety for less gin waste and more gin turn out. Data from stripper harvested samples of new strains tests at Lubbock in 1974 & 1977 showed that percent gin waste in Dunn 224 was very low i. e. 30.2 with good gin turn out percent 24.3 - 26.6 (Appendix 3 and 7)
6. Dunn 224 has a standard fiber quality. Data of cotton variety tests at Corpus Christie (1975), Oklahoma (1975), Dallas (1977), and Brawley, California (1978) show that micronaire at premium range between 3.5 - 5.0, staple length 1.01 - 1.087 and strength MPSI 87.3 - 101.3 (Appendix 5, 4, G & 16)